REMARKS

Claims 1-28 are all the claims pending in the application. Claims 1, 2 and 6 have been amended. Claim 6 has been rewritten in independent form. Support for amended claims 1 and 2 can be found, for example, at page 9, line 24 to page 10, line 1 of the present specification.

Entry of the above amendments is respectfully requested.

I. Response to rejection of Claims 1-3, 8-9, 11, 12, 14 Under 35 U.S.C. § 103(a)

On pages 2-3 of the Office Action, claims 1-3, 8-9, 11, 12, and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kudoh et al. (U.S. Patent 5,177,332) or Satoru (JP-5-166681; "JP '681") taken with Cichanowski (U.S. Patent 4,499,520).

Applicants respectfully traverse this rejection for the following reasons.

The present invention relates to a method for producing a solid electrolytic capacitor where a masking material solution is coated by press contacting. The masking solution infiltrates into the pores of the dielectric film and forms a masking layer on the infiltrated portion and linearly around an entire circumference of the metal material. The solidified masking layer prevents infiltration of a solid electrolyte formed in a subsequent step.

Kudoh discloses that the insulating layer 13 may be formed by adhering a polymer film to the inorganic conductive layer 22. *See* col. 9, lines 42-44. In addition, Kudoh discloses that a polymer or pre-polymer solution of the insulating layer 13 is applied to the inorganic conductive layer in position and dried. *See* col. 9, lines 44-46. The inorganic conductive layer is provided on the dielectric oxide film. *See* col. 8, lines 51-55.

However, the insulating layer 13 of Kudoh is formed on the conductive layer 22 (and also on valve metal member 10), and not directly on the dielectric oxide film 21. Thus, contrary to the Examiner's assertion, the insulating solution in Kudoh does not infiltrate into the dielectric layer.

In addition, the Examiner notes that Kudoh teaches that the dielectric oxide film may be formed over the entire surfaces of the valve member 10 prior to formation or attachment of the insulating layer 13 at col. 9, lines 16-21. However, this disclosure of Kudoh simply discloses that the dielectric film may be formed on the valve metal member 10, and does not disclose that the insulating layer 13 is formed on the dielectric oxide film 21. Therefore, contrary to the Examiner's assertion, the insulating solution of Kudoh does not infiltrate into the dielectric oxide film.

Although the Examiner has not discussed JP '681, JP '681 discloses a solid electrolytic capacitor having an etched foil, a dielectric film, a solid electrolyte crawling up preventive part 4, a chemically oxidized polymer film and an electrolytic polymer film. *See* Abstract. The crawling up preventive part 4 has a tape or a resin coat film. However, JP '681 does not teach or suggest that the crawling up preventive part 4 is formed by press-coating.

Cichanowski relates to a capacitor comprising two electrodes and a method of making such capacitor, and discloses that typical conductive materials useful as electrodes (e.g., electrode 10 in Fig. 1) are aluminum, copper, zinc, tin, stainless steel alloys thereof, with aluminum being preferred. *See* col. 2, lines 29-34. In addition, Cichanowski uses an aluminum foil electrode of 12.5μ in Example 19.

In contrast, the present invention uses a metal material having pores.

In addition, at col. 10, lines 1-9, Cichanowski discloses that a dielectric coating of a polymer is formed on a substrate, and that the dielectric coating of the polymer may be applied by roller coating, dipping, spraying, etc. Cichanowski does not disclose the use of an insulating layer and thus, does not specifically teach that a masking solution can be applied to a dielectric layer by roller coating. Furthermore, Cichanowski discloses that the use of electron beam polymerization is particularly preferred, which leads to economical production of very thin coatings. *See* col. 10, lines 12-17.

Therefore, Cichanowski does not provide any technical motivation for one of ordinary skill in the art to apply the insulating layer of Kudoh (or JP '681) by press contacting to arrive at the present invention.

In addition, amended claims 1 and 2 further require forming a masking layer linearly around an entire circumference of the metal material in addition to the infiltrated portion. This aspect of the invention also is not disclosed by the cited prior art.

In view of the above, withdrawal of the foregoing rejection is respectfully requested.

II. Response to rejection of Claims 10-13 Under 35 U.S.C. § 103(a)

On pages 3-4 of the Office Action, claims 10-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kudoh et al. taken with Cichanowski and further in view of Applicants' admitted prior art.

The Examiner's position is substantially the same as that set forth in the previous Office Action.

Applicants respond as follows.

As discussed above, the insulating layer 13 of Kudoh is not formed directly on the dielectric oxide film 21, and therefore, the insulating solution of Kudoh does not infiltrate into the dielectric layer. In addition, Cichanowski does not disclose the use of an insulating layer and thus, does not specifically teach that a masking solution can be applied to a dielectric layer by roller coating. Accordingly, Kudoh and Cichanowski do not teach or suggest the present invention.

Therefore, withdrawal of the foregoing rejection is respectfully requested.

III. Response to rejection of Claims 4-5 Under 35 U.S.C. § 103(a)

On page 4 of the Office Action, claims 4-5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kudoh et al., Cichanowski and further of Kuranuki et al (U.S. Patent 5,198,967) and Scheer (U.S. Patent 4,872,962).

Applicants respond as follows.

Applicants rely on the response above with respect to the rejection over Kudoh and Cichanowski.

Kudoh and Cichanowski do not teach or suggest the present invention because insulating layer 13 of Kudoh is not formed directly on the dielectric oxide film 21, and therefore, the insulating solution would not infiltrate into the dielectric layer. In addition, Cichanowski does not disclose the use of an insulating layer and thus, does not provide any motivation for one of ordinary skill in the art to apply the insulating layer of Kudoh by press-contacting.

In addition, Scheer relates to a printing press with a printed image carrier having an image thereon corresponding to the matter to be printed on paper or the

like. Therefore, Scheer does not relate to a solid electrolytic capacitor or a method of making a solid electrolytic capacitor. Therefore, Scheer is not relevant to the claims of the present invention, and contrary to the Examiner's position, Scheer does not show application of a masking material solution to the rotated disk in forming the material solution on the entire circumference.

In view of the above, withdrawal of the foregoing rejection is respectfully requested.

IV. **Response to rejection of Claims 1-3, 8-14 Under 35 U.S.C. § 103**

On pages 4-6 of the Office Action, claims 1-3, 8-14, are rejected under 35 U.S.C. § 103 as being anticipated by Kenichi et al. (JP-5047611; JP "611"), Applicants' admitted prior art (specification pages 3-4), Nakamura et al. (U.S. Patent 5,483,415) and further Robinson et al. (U.S. Patent 5,795,647).

Applicants respectfully traverse this rejection for the following reasons.

JP '611 relates to a method for manufacturing a solid electrolytic capacitor where an insulating film by electrodepositing a solution containing a polyamic salt and heat treating to form a polyimide film.

As noted previously, in Nakamura, the dielectric coating is formed after the infiltration of the porous chip with an insulating substance. Therefore, Nakamura does not disclose that a masking material solution is coated so as to infiltrate the dielectric oxide film, as in the present invention.

Robinson relates to a printing plate made by coating a metal substrate with a polymer layer. Robinson discloses that a polymer layer can be coated onto the metal substrate by, for example, spraying roll coating, dipping, etc. *See* col. 2, lines 15-18.

However, since Robinson does not relate to a solid electrolytic capacitor, Robinson is not relevant to the present claims. Thus, there is no technical motivation for one of ordinary skill in the art to coat a dielectric film with a masking material solution by press contacting to arrive at the present invention.

Therefore, JP '611, Nakamura and Robinson fail to teach or suggest the present invention.

Accordingly, withdrawal of the foregoing rejection is respectfully requested.

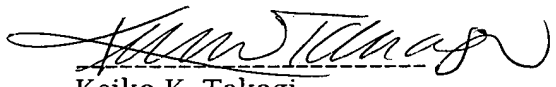
V. Conclusion

In conclusion, the §102 and 103 rejections should be overcome, and in view of the above, it is respectfully submitted that the claims are in condition for allowance.

Reconsideration and withdrawal of the rejections and allowance of claims 1-14 at an early date are respectfully requested.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



Keiko K. Takagi
Registration No. 47,121

SUGHRUE MION, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, D.C. 20037-3213
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

Date: November 12, 2002

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Twice Amended) A method for producing a solid electrolytic capacitor comprising a metal material having thereon a dielectric film having surface pores and a solid electrolyte formed on a desired position of the dielectric film, the metal material having valve action, wherein the method comprises the step of coating by press-contacting a masking material solution that infiltrates into the pores of the dielectric film and forms a masking layer on the infiltrated portion and linearly around an entire circumference of the metal material.

2. (Twice Amended) A method for producing a solid electrolytic capacitor comprising a metal material having thereon a dielectric film having surface pores and a solid electrolyte formed on a desired position of the dielectric film, the metal material having valve action, wherein the method comprises the step of coating by press-contacting a masking material solution that infiltrates into the pores of the dielectric film and forms a masking layer on the infiltrated portion, and linearly around an entire circumference of the metal material, wherein a masking resin that has infiltrated into the pores of the dielectric film and solidified during the coating step prevents infiltration of a solid electrolyte formed in a subsequent step.

6. (Twice amended) [The] A method for producing a solid electrolytic capacitor comprising a metal material having thereon a dielectric film having surface pores and a solid electrolyte formed on a desired position of the dielectric film, said metal material being cut into a predetermined shape and having valve action, [as claimed in claim 1,] wherein the method comprises the step of coating by press-contacting a masking material solution on said metal material to form a first masking layer and the step of coating a masking material solution on said metal material to form a second masking layer, wherein at least the step of forming a second masking layer causes the infiltration of the masking material solution into the pores of the dielectric film and the formation of the masking layer on the infiltrated portion.